

# Cooperative US-Mexico Border Development Initiative

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## The Need and Vision

Guided by Sandia's core purpose of helping our nation secure a peaceful and free world through technology, we are proposing a Cooperative US-Mexico Border Development Initiative. Today, we have an unprecedented opportunity to take positive and concrete steps towards the goal of enhanced alliance with our neighbor on the south through sustainable economic growth in the border region.

In this era of national prosperity, the U.S.-Mexico border region has lagged behind. Many communities on both sides of the border endure high poverty and unemployment, low educational levels, and rapid population growth. The region also suffers from limited resources and significant pollution. These conditions make the region more susceptible to massive migration and worsening of pollution and public health problems. We believe that true changes in the quality of life in the border area can be achieved only through sustainable economic growth and the resultant community wealth creation.

The new Mexican president's call for a closer relationship with the United States and Canada along the lines of the European Union presents an opportunity for joint efforts to address the problems of the U.S.-Mexico border region. President Vicente Fox has proposed to invest heavily in education, liberalize labor laws, and stimulate economic growth. Similarly, President Bush recognizes this opportunity to bring new thinking to longstanding issues in the U.S.-Mexico friendly relationship. Ignoring this opportunity may actually worsen the problems of the border region in the long term and create serious national security concerns at the nation's doorstep.

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The focus of our initiative is to:

- Develop, in cooperation with the Mexican government, a comprehensive economic strategy for the border region that takes into account energy needs, local resources, environmental impacts, and conservation measures. This plan should include programs to enhance the health and education of people in the region, as a foundation for economic development.
- Establish a joint U.S.-Mexico bi-national laboratory (BNSL) focused on developing technologies and economic opportunities for sustainable development in the border region. This will be a truly bi-national institution with US and Mexican staff earning equivalent wages. Its sole mission will be sustainable economic development along the both sides of the border.

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### **Characteristics of the BNSL**

The BNSL will be designed to provide an applied technology base for establishing and expanding value-added industries in the border region. It will lead to increased profitability of existing industries and its products will include new technologies that create new industries to export these products worldwide.

Funded by both national governments, regional governments and development organizations, the BNSL will be located on the border — half in the US and half in Mexico. The facility itself will symbolize the long-term vision of a border community that is open, secure, economically vibrant, and environmentally sustainable.

The BNSL will be the hub facility with satellite labs and incubators situated along the entire border region. These satellite facilities could be new or utilize existing institutions. This network would enable the labs to focus on more localized problems and facilitate the migration of ideas, people, and technology

along the entire border.



The BNSL will attract experienced retirees and young professionals to study, work, and invent together. The ideas, technologies, and staff would spin out of the lab to form new clusters of value-added industries on both sides of the border to achieve the goal of enhanced prosperity in the region. In addition to the technology developers, the lab will include social and cultural studies, business planning, product realization, and investment capital expertise. By bringing together researchers, product realization staff, business and finance experts, and social scientists in integrated teams, the laboratory will be able to accelerate the path from product concept to commercial product and small business spin-offs.

The BNSL staff will need to be large enough to yield solutions to large-scale problems, yet small enough to operate as a cohesive, bi-national entity.

The BNSL would be a not-for-profit entity with the ability to take an equity stake in companies spun out of the BNSL. Revenues generated from these equity stakes along with royalties from BNSL inventions would be used to establish an endowment to help fund the lab. This endowment would be a principal mechanism for making the BNSL financially sustainable over the long term.

In addition to being a new Sandia initiative, the BNSL would also be an instrument of positive change for existing Sandia programs, enabling lab staff and technology programs to establish and feed into the BNSL. It will serve as a vehicle for testing the cultural compatibility of Sandia technologies on the border, connecting with the needs of the border community, generating new ideas that require Sandia's unique R&D facilities.

Programs	Short	Near	Mid	Long
<b>Technology transfer</b>	Pick early applicable innovations	Foster new directed research	New companies based on home grown entrepreneurial ideas	
<b>Water Technology</b>	Characterization of resources	Management strategy monitoring, treatment, recycling	Implement technology developed at the BNSL, agriculture, treatment, desalination	
<b>Manufacturing technology</b>	Training industry recruitment magnet	Precision manufacturing	Microelectronics entrepreneurial support	Biotechnology Entrepreneurial support
<b>Education and Work force development</b>	Train the trainers program	Attract retirees Internships	New Colleges and Universities	
<b>Public health</b>	Cooperative monitoring Healthy lifestyle promotion	Joint preventive and treatment programs	Regional epidemiology support	Vaccine development
<b>Elder Technology</b>	Assistive technology needs assessment  Definition of Techno-health care profession	Development programs  Training new health care givers with technology skills	Prototype products	Start up companies